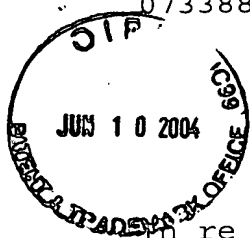


ATTORNEY DOCKET NO.
073388.0120

PATENT APPLICATION
09/451,506

1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Graham W. Glass
Serial No.: 09/451,506
Filing Date: November 30, 1999
Group Art Unit: 2141
Examiner: Adnan M. Mirza
Title: SYSTEM AND METHOD FOR COMMUNICATIONS
BETWEEN A CORBA OBJECT REQUEST BROKER
AND A NON-CORBA OBJECT REQUEST BROKER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Technology Center 2100

Dear Sir:

APPEAL BRIEF

Applicant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed December 11, 2003, finally rejecting Claims 1-14. Applicant filed a Notice of Appeal on March 11, 2004. Applicant respectfully submits herewith their brief on appeal, in triplicate, with a statutory fee of \$165.00.

06/15/2004 MAHME1 00000084 09451506

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REAL PARTY IN INTEREST

The present application was assigned to Objectspace, Inc., a Delaware corporation, as indicated by an assignment from the inventor recorded on November 30, 1999 in the Assignment Records of the United States Patent and Trademark Office at Reel 010424, Frames 0132-0135. The present application was subsequently assigned by Objectspace, Inc. to Recursion Software, Inc., a Texas corporation, as indicated by an assignment recorded on February 22, 2002 in the Assignment Records of the United States Patent and Trademark Office at Reel 012588, Frames 0010-0013.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-14 stand rejected pursuant to a Final Action mailed December 11, 2003. Claims 1-14 are all presented for appeal.

STATUS OF AMENDMENTS

A Response to Examiner's Final Action was filed on February 11, 2004 in response to the Final Action mailed December 11, 2003. No amendments were made to the claims. The Examiner issued an Advisory Action dated February 25, 2004 which stated that the Response to Examiner's Final Action would be entered but that it did not place the application in condition for allowance. A Notice of Appeal was filed on March 11, 2004.

SUMMARY OF INVENTION

The present invention involves a method and system for communication between object request brokers in a distributed processing computer system (10). The system (10) includes a non-CORBA object request broker (112) on a client system (102) that provides inter-object communication support between the client system (102) and a server system (104). The client system (102) is connected to the server system (104) by a network (106). The non-CORBA object request broker (112) has the ability to generate a class with a type code and a communication protocol without generating a stub or skeleton associated with CORBA object request brokers. A reference object (158) in the non-CORBA object request broker (112) encodes outgoing communications into an Internet Inter-ORB Protocol format according to the communication protocol in the generated class. The reference object (158) also decodes incoming communications from the Internet Inter-ORB Protocol format into a format native to the non-CORBA object request broker (112).

STATEMENT OF ISSUES

1. Did the Examiner err in concluding that Claims 1-14 were obvious under 35 U.S.C. §103(a) over Apte, et al. in view of McQuistan, et al. and further in view of Chang?

GROUPING OF CLAIMS

Applicant respectfully requests that Claims 1-14 be grouped to stand or fall together according to 37 C.F.R. §1.192(c) (7).

ARGUMENT

1. Claims 1-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Apte, et al. in view of McQuistan, et al. and further in view of Chang. According to M.P.E.P. §2143, to establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to combine the references. Second, there must be a reasonable expectation of success. Third, the prior art combination of references must teach or suggest all the claim limitations. The Examiner has not established that any criteria for a prima facie case of obviousness has been met in this instance.

First, there is no suggestion or motivation in the Apte, et al., McQuistan, et al., or Chang patents to combine them as proposed by the Examiner. The Apte, et al. patent is directed to a technique for providing communications between different implementations of object request brokers. The McQuistan, et al. patent is directed to remote procedure calls utilizing a translation mechanism to marshal code. The Chang patent is directed to a system for providing communications between different implementations of object request brokers. The Examiner has not cited any language within the Apte, et al., McQuistan, et al., or Chang patents that would suggest any capability for them to be combined. In fact, no objective reason was provided by the Examiner for combining the references as has been proposed other than through an improper hindsight reconstruction of the claimed invention. The Examiner has merely provided conclusory "it would have been obvious to combine" statements using improper hindsight reconstruction without any support for such conclusory statements from any of the cited references. A statement that modifications of the prior art to meet the claimed invention

would have been well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. See M.P.E.P. 2143.01. Since the Examiner has not provided any reasoning, let alone objective reasoning, the burden to establish the first criteria of a prima facie case of obviousness has not been met.

Moreover, the proposed modification changes the principle of operation of the prior art being modified. The Apte, et al., McQuistan, et al., and Chang patents provide different techniques for communicating between a client and a server. Thus, the principle of operation of the Apte, et al., Chang, and McQuistan, et al. patents would be improperly changed by incorporating their respective teachings. The Examiner has yet to explain how the McQuistan, et al., Chang, and Apte, et al. patents can be combined in view of such different functionalities. Therefore, Applicant respectfully submits that the Examiner has failed to establish the first criteria for a prima facie case of obviousness.

Second, a reasonable expectation of success has not been shown by the Examiner. The combination of the Apte, et al., McQuistan, et al., and Chang patents would not be capable of performing the operation required by the claimed invention. There is no showing by the Examiner that the functions of any of the Apte, et al., McQuistan, et al., and Chang patents would be able to operate in a single system. There has also been no showing that the combined references would even be able to perform the functionality of the claimed invention. The proposed combination attempts to combine incompatible

processing techniques that have not been shown to be capable of operating according to any degree of predictability. The Examiner, without the improper hindsight look through the claimed invention, has not addressed how the proposed combination of the Apte, et al, McQuistan, et al., and Chang patents would have any success whatsoever let alone a reasonable expectation of success. Therefore, Applicant respectfully submits that the Examiner has failed to establish the second criteria for a prima facie case of obviousness.

Third, the Examiner has not shown that the proposed Apte, et al. - McQuistan, et al. - Chang combination teaches or suggests all of the claim limitations. For example, Independent Claims 1 and 12 recite in general the generation on the client system a class with a type code and a communication protocol without generating a stub or a skeleton associated with Common Object Request Broker Architecture (CORBA) compliant object request brokers. By contrast, the Examiner readily admits that the Apte, et al. patent fails to disclose this capability. Moreover, the Examiner does not show that the Chang patent supports this capability. The Examiner uses the McQuistan, et al. patent to support the disclosure of this capability. However, the McQuistan, et al. patent clearly requires the use of a stub on its client system. See stubs 408 and 412 in FIG. 4 and stub invocation for client side processing in FIG. 5 of the McQuistan, et al. patent. The Examiner continues to point to the statement in the McQuistan, et al. patent that its preferred embodiment does not use stubs on its server side. However, the claimed invention requires that stubs not be used on the client side. As shown above, the McQuistan, et al. patent clearly requires stubs on its client side regardless of the implementation of the server side. Thus, the Examiner's proposed combination

does not generate on the client system a class with a type code and a communication protocol without generating a stub or a skeleton as provided by Independent Claims 1 and 12. The structure that would result from placing the server system of the McQuistan, et al. patent with its stubless operation into the distributed processing system of the Apte, et al. would still lack a capability to provide communications from the client system without stubs or skeletons as provided by the claimed invention. Thus, the Examiner has failed to show how the proposed combination of the Apte, et al., McQuistan, et al., and Chang patent patents teaches each and every limitation of the claims. Without showing how each limitation of each claim is shown in the prior art, there is no possibility to meet the third criteria of a prima facie case of obviousness. Therefore, Applicant respectfully submits that the Examiner has failed to establish the third criteria for a prima facie case of obviousness.

Applicant respectfully requests the Examiner to provide one or more combinable references that support the rejections of the claims. Applicant also respectfully requests the Examiner to show where each and every limitation of each and every claim is taught or suggested by the prior art. With no other supporting reference that is combinable with the Apte, et al., McQuistan, et al., and Chang patents, all claim limitations have not been taught or suggested by the Examiner's currently proposed combination. The Examiner has not cited any language within the Apte, et al., McQuistan, et al., or Chang patents, either alone or in combination, that would suggest the desirability of making the claimed invention or providing any motivation to do so. Subjective conclusions of obviousness are not sufficient to establish a prima facie case of obviousness without some objective reason to modify

and combine the prior art references. Therefore, Applicant respectfully submits that Claims 1-14 are patentably distinct from the proposed Apte, et al. - McQuistan, et al. - Chang combination.

CONCLUSION

Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over all the art cited of record, either alone or in combination, and satisfies all requirements under 35 U.S.C. §§101, 102, and 103, and 112. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

Attached herewith is a check made payable to the "Commissioner of Patents and Trademarks" in an amount of \$165.00 to satisfy the appeal brief filing fee of 37 C.F.R. §1.17(c).

Applicant respectfully requests a one month extension of time for submitting this Appeal Brief. Attached herewith is a Notification of Extension of Time in support thereof and a check made payable to the "Commissioner of Patents and Trademarks" in an amount of \$110.00 to satisfy the extension of time fee of 37 C.F.R. §1.17(a)(1).

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.

Attorneys for Applicant

A handwritten signature in dark ink, appearing to read 'Charles S. Fish', with a stylized flourish at the end.

Charles S. Fish

Reg. No. 35,870

June 10, 2004

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Dallas, TX 75201-2980

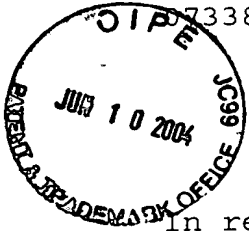
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PATENT APPLICATION
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of:

Graham W. Glass

Serial No.:

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Filing Date:

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Group Art Unit:

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Examiner:

Adnan M. Mirza

Title:

SYSTEM AND METHOD FOR
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NON-CORBA OBJECT REQUEST BROKER

Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450

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JUN 16 2004

Technology Center 2100

Dear Sir:

CERTIFICATE OF MAILING BY EXPRESS MAIL

I hereby certify that the attached Appeal Brief (in triplicate) with check is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on this 10th day of June 2004, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Willie Jiles

Willie Jiles

Express Mail Receipt
No. EV 322190769 US

APPENDIX A

1. (Previously Presented) A system for communication between object request brokers (ORB), comprising:

a non-CORBA object request broker executing on a client system and providing inter-object communication support between the client system and a server system, the client system connected to the server system by a network, the non-CORBA object request broker operable to generate a class with a type code and a communication protocol without generating a stub or a skeleton associated with Common Object Request Broker Architecture (CORBA) object request brokers; and

a reference object in the non-CORBA object request broker operable to encode outgoing communications into an Internet Inter-ORB Protocol (IIOP) format according to the communication protocol in the generated class, the reference object further operable to decode incoming communications from the Internet Inter-ORB Protocol (IIOP) format into a format native to the non-CORBA object request broker.

2. (Previously Presented) The system of Claim 1, further comprising a CORBA object request broker executing on the server system.

3. (Previously Presented) The system of Claim 1, further comprising one or more streamers coupled to the reference object, the one or more streamers corresponding in number to methods of a target object, the one or more streamers serially sending bytes of outgoing communications to the server system.

4. (Previously Presented) The system of Claim 1, further comprising a client application on the client system.

5. (Previously Presented) The system of Claim 1, further comprising a target object on the server system.

6. (Previously Presented) The system of Claim 1, wherein the class is generated from Interface Description Language (IDL) definitions.

7. (Previously Presented) The system of Claim 6, wherein the non-CORBA object request broker provides an ORB-specific implementation of the IDL class having information to communicate with other ORBs.

8. (Original) The system of Claim 1, wherein a remote proxy sends the outgoing communication to the reference object.

9. (Previously Presented) The system of Claim 8, wherein the remote proxy receives the outgoing communication from an application on the client system.

10. (Previously Presented) The system of Claim 1, wherein the reference object receives incoming communications from the server system.

11. (Previously Presented) The system of Claim 1, wherein the type code identifies a structure corresponding to an Interface Description Language (IDL) definition and provides communication support between CORBA and non-CORBA ORBs.

12. (Previously Presented) A method for communication between object request brokers (ORB), comprising:

invoking a method of a target object on a server system by an application on a client system;

generating on the client system a class with a type code and a communication protocol without generating a stub or a skeleton associated with Common Object Request Broker Architecture (CORBA) compliant object request brokers;

forwarding the method invocation to a reference object associated with the communication protocol in a client object request broker executing on the client system;

encoding the method invocation into Internet Inter-ORB Protocol (IIOP) format;

sending the encoded method invocation to a server object request broker executing on the server system; and

invoking the method on the target object.

13. (Previously Presented) The method of Claim 12, wherein sending the encoded method invocation includes:

forwarding the encoded method invocation to one of one or more streamer objects corresponding to a method invoked by the encoded method invocation; and

serially streaming bytes of the encoded method invocation to the server object request broker.

14. (Previously Presented) The method of Claim 12, further comprising:

forwarding a result of the method invocation to the server object request broker;

transmitting the result to the client object request broker executing on the client system;

receiving the result encoded in Internet Inter-ORB Protocol (IIOP) format in the reference object;

decoding the result into a format native to the client object request broker; and

forwarding the result to the application.